

# **NEGP MONTHLY**

A monthly in-depth look at states and communities and their efforts to reach the National Education Goals
Published by the NATIONAL EDUCATION GOALS PANEL

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Minnesota,
North Dakota and Rhode
Island

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1255 22nd Street NW, Suite 502 Washington, DC 20010; 202-724-0015 www.negp.gov

NEGP Acting Executive Director and Publisher: Emily Wurtz

Author: Anne C. Lewis, The McKenzie Group, Inc. Research Assistant: Sarah Demma, The McKenzieGroup, Inc.

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# STATE POLICIES INFLUENCE PREPAREDNESS OF CLASSROOM TEACHERS

It is an axiom of current school reform that what teachers know and their skills at teaching it hold the key to student learning. Current reforms tinkered around with limited aspects of school change for a long time, but research finally led to the realization that quality teaching is the foundation of higher student learning.

According to a study by the Educational Testing Service, "teachers who are more knowledgeable about the subject area they teach, as measured by majoring or minoring in that subject, are...more likely to engage in effective classroom practices." These practices include such strategies as teaching higher-order thinking skills or implementing hands-on learning. The data in math instruction are clear. When teachers report earning a college degree in math, holding a certification in math, and demonstrating their own math skills, their students learn more math.

To recognize the importance of teaching quality, Goal 4— Teacher Education and Professional Development—was added to the original six National Education Goals by Congress when it approved legislation authorizing the National Education Goals Panel and the bi-partisan efforts to meet the goals. While the definition of quality in teacher preparation and professional development is evolving and contains several elements, two indicators used by the Goals Panel regarding assurance that secondary teachers have necessary content knowledge are basic. These are:

- academic degrees, or the percentages of public secondary school teachers who hold undergraduate or graduate degrees in their main teaching assignment; and
- teaching certificates, or the percentages of public secondary school teachers who hold teaching certificates in their main teaching assignment.

Greater attention is being paid to degrees and certificates in



content areas earned by middle and high school teachers largely because of concerns about the performance levels of American teenagers, especially in math and science. Overall, only 44% of middle-school teachers and 66% of high school teachers majored in an academic field as of 1998, according to the National Center for Education Statistics NCES). The percentages were virtually unchanged from four years previously. Most secondary teachers, however, reported that they had obtained a regular or advanced certificate in the field in which they taught the most courses (92%). The longer they teach, the more likely they are to become fully certified. One reason is that many beginning teachers are given only provisional or probationary certifications.

As a group, teachers have the ability to acquire the knowledge and skills needed to teach at high levels in secondary schools. According to one analysis, teacher candidates who passed one of the major licensure exams, the Praxis Series, had higher SAT and ACT scores than the overall college-bound population. Furthermore, teachers performed significantly higher on literacy scales than the general American population as recorded by data from the National Adult Literacy Survey. Such research counters a frequently held public perception that those who choose to teach are not as qualified as other professionals. There are other issues to consider when looking for ways to improve high school student performance.

#### The Importance of Teachers' Content Background

If only the newest teachers are taken into consideration, the emphasis on a strong content background for secondary-level teachers appears to be making an impact. Among teachers with less than three years experience (as of 1998), half had majored in an academic field. According to NCES data, this compares to 32-41% of more experienced teachers.

Support for academic majors and minors among teachers in departmentalized settings (subject-matter assignments) has been growing in the policy world. While the National Commission on Teaching & America's Future did not directly endorse academic degrees in its landmark 1996 report, it did say positive things about the five-year preparation program in which prospective teachers obtain an academic degree and focus on subject-matter pedagogy and clinical teaching in a fifth year, usually resulting in a master's degree.

Other key policymaking groups in this area are moving teacher preparation more rapidly toward a stronger academic focus. New standards of the National Council for the Accreditation of Teacher Education emphasize more than ever before the need for prospective teachers to have an academic background. Also, the Interstate New Teacher Assessment and Support Consortium (INTASC) has developed new standards for licensing of beginning teachers that test teachers on subject-matter knowledge for an initial license and require performance assessments in which teachers demonstrate their knowledge of subject matter after the first one or two years of teaching.

Policy recommendations from two major higher education groups urge college presidents and other leaders to involve the whole arts and sciences faculty in the preparation of teachers more than the norm at this time. The American Council of Education statement, "To Touch the Future," calls for every campus to have an oversight committee of academic leaders from the arts and sciences and education faculty to "craft and supervise the curriculum and academic standards for the teacher education program." Similarly, "A Call for Teacher Education Reform," prepared by the American Association of State Colleges and Universities, says teachers graduating from its institutions "will be deeply grounded in the subject matter they will teach" and "study with faculty from other disciplines



# The National Education Goals Panel

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outside the colleges of education who will participate in their continuing professional development as a function of a university-wide responsibility for teacher preparation." Both of these reports were released in 1999.

#### Licensure and Certification Issues

While INTASC and NCATE are bringing some cohesion based on higher standards to the licensure and certification of teachers, much still needs to be done.

According to a year 2000 Public Agenda survey, "A Sense of Calling: Who Teaches and Why," new teachers tended to show little confidence in current teacher certification requirements. A majority (55%) said that being fully certified (as were 92% of those surveyed) only guarantees a minimum of skills; 17% said certification "guarantees very little." School administrators were even more critical with nine of 10 saying certification tells them only the minimum or very little about a teacher's skills.

The Education Trust, studying teacher licensing tests in 1999, noted that 44 states require candidates for secondary licenses to pass a licensing exam, but only 29 states require them to take tests in the subject area they will teach. Furthermore, the subject-area tests generally used require no more understanding of the discipline than would high-level high school courses. The Trust's study of the most frequently used tests found only one example of high-standard, subject-area exams—the essay tests published by the Educational Testing Service. Few states require them, however.

## Out-of-Field Teaching in American High Schools

Even if academic preparation and certification systems were vastly improved, there is no guarantee that secondary school students would be taught by teachers with appropriate academic backgrounds. The reason is the widespread use in most states of out-of-field placement of teachers in classrooms.

According to data reported by teachers in the NCES study, out-of-field teaching decreased between 1994 and 1998 and seemed less of a problem than other studies have indicated. Overall, 96% of English teachers, 90% of math teachers, and 96% of science teachers in grades 9-12 reported having an undergraduate or graduate major or minor in their main teaching assignment field. The percentages were much lower in schools with high minority student enrollments, e.g. only 82% of math teachers in schools with more than 50% minorities reported majors or minors in their subject-matter field. NCES also notes that if the statistics extend down



to grade 7, it is clear that grades 7-8 teachers are less likely to be teaching in field than those in grades 9-12.

A more pessimistic picture comes from studies by Richard Ingersoll and others on out-of-field teaching. Ingersoll, a sociologist at the University of Georgia, says that in any given year, out-of-field teaching occurs in well over half of all secondary schools in the country and changed little between the mid-1980s and the mid-1990s. In all, more than four million secondary-level students are taught by teachers with neither a major nor a minor in the field, he says.

The incidence of out-of-field teaching is more prevalent in high-poverty schools, according to Ingersoll, and in low-track classes, e.g., one-fourth of low-track English classes are taught by teachers without majors or minors in the field. His analyses found that 33% of those teaching secondary-school math do not have a major or a minor in the subject, in math education, or in a related discipline such as physics or engineering. He dismisses union seniority rules or teacher shortages for the incidence of out-of-field teaching. Rather, he suggests that the low-status given teaching results in recruiting and retention problems and a lack of control by teachers over their professional lives. In this context, principals assign teachers according to convenience instead of teaching strengths.

### **Policy Recommendations**

In addition to the higher education statements above, many experts and groups have weighed in with recommendations to improve the academic background of teachers and the licensing/certification process.

The American Federation of Teachers, for example, calls on higher education institutions to require education and arts and sciences faculty to establish core courses in the liberal arts and sciences for all freshmen and sophomores planning on entering a teacher education program. Also, it says, all teacher candidates, including those in elementary education preparation, should have an academic major.

The Southern Regional Education Board has recommended to its member states that teacher licensure standards be raised, and notes that many southern states have begun to focus more on prospective teachers' performance and less on the number of courses they have taken. This is true, it says, in Kentucky, Maryland, South Carolina, and Virginia. Several states, notably Georgia, also are developing subject-specific licenses for the middle grades.

NCATE and states which use NCATE accreditation are now committed to holding colleges of education accountable for producing candidates with the same knowledge and skills that states require in individual candidates taking their licensure/certification tests. The federal Higher Education Act also is requiring data collection and accountability of teacher preparation programs.

The Education Trust recommends that states require essay-rich assessments for licensing of secondary teachers as a first step, combined with multiple-choice exams. It also says all states should immediately initiate a process of developing clear academic standards for what teachers need to know in the various content areas in order to teach students to the state K-12 standards. At the secondary level, this would be set at the level a college student should acquire during four years of intensive study of the discipline.

Finally, Linda Darling-Hammond, director of the National Commission on Teaching &



# THE NATIONAL EDUCATION GOALS



Goal 1: Ready to Learn



**Goal 2: School Completion** 



Goal 3: Student Achievement and Citizenship



Goal 4: Teacher Education and Professional Development



**Goal 5: Mathematics and Science** 



Goal 6: Adult Literacy and Lifelong Learning



Goal 7: Safe, Disciplined and Alochol- and Drug-free Schools



**Goal 8: Parental Participation** 

America's Future, notes that states with high standards for teacher preparation and placement also have higher levels of student achievement. Connecticut put in place not only higher standards for prospective teachers, but also equalized funding to allow low-wealth districts to hire more qualified teachers. Minnesota, North Dakota, and lowa have enacted high standards for entering the teaching profession and are among the few states that do not allow districts to hire unqualified teachers on substandard licenses. School districts in Minnesota, Wisconsin, and North Dakota are most likely to require a college major or minor in the field taught as well as full state certification as a condition of hiring. Minnesota, North Dakota, and lowa have some of the lowest rates of out-of-field teaching.

These states, including Minnesota, North Dakota, Connecticut, and Rhode Island, are among the highest performing states on the indicators of academic degrees obtained by secondary teachers and subject-matter certification by secondary teachers in the data reported by the National Education Goals Panel. On the former indicator, the average in the United States is 63% of secondary teachers with undergraduate or graduate degrees in their main teaching assignment. On the latter indicator, the average percentage of secondary teachers with a teaching certificate in their main teaching assignment is 93%.

#### Connecticut

Connecticut state law requires every classroom to be staffed by a certified teacher. State policies support this mandate through a series of reforms that began in earnest in 1986 when the state invested \$300 million in minimum salaries for beginning teachers. The investment was equalized across the state, allowing low-wealth school districts to compete for qualified teachers. High salaries for teachers are part of a state tradition that understands the importance of education, according to Tom Murphy, spokesperson for the Connecticut Department of Education. Teachers are recognized as professionals and appreciated for the work they do, he says. According to NEGP data, 99% of Connecticut's secondary school teachers are certified in their main teaching assignment.

At the same time it raised teacher salaries, Connecticut raised licensing standards and started an exemplary teacher induction program. Recently, it has supported the creation of professional development schools and incorporated the INTASC standards and portfolio assessments into its performance-based licensing system.

The state education department oversees teacher preparation as well as certification, allowing it to develop good working relationships with college deans. "They understand how teacher preparation relates to our standards," Murphy says. The state uses Praxis I



(basic skills) and Praxis 2 (subject area) tests, setting higher passing scores than many states. The BEST program follows new teachers for the first critical years in the classroom, providing mentors and professional development experiences. It prepares teachers for the multi-tiered certification system in Connecticut. Teachers begin with an initial certification. Based on completion of the BEST program, which includes assessment through portfolios and videos as well as examples of student work, they earn a provisional certificate, followed after more years of teaching by a professional certificate. The last must be renewed every five years.

Contact:
Tom Murphy
Connecticut Department of Education
165 Capitol Ave.
Hartford, CT 06106
860-566-8792
P.O. Box 2219
Hartford, CT 06145-2219
www.state.ct.us/sde

#### **Minnesota**

The course requirements in Minnesota for certification to teach academic subject areas are so extensive that they almost are equal to an academic degree, according to Judy McGilvary, supervisor of licensing, for the Minnesota Department of Children, Families, and Learning. Eighty-one percent of the secondary school teachers in the state hold academic undergraduate or graduate degrees in their main teaching assignment. Also, 98% of public secondary school teachers hold a teaching certificate in their main teaching assignment.

New requirements in Minnesota for certification are performance-based, and teacher preparation programs must move toward performance assessment if they want state approval. The emphasis, McGilvary says, is not on a degree but on what prospective teachers know about their subject area. The content also has changed. A degree in English, for example, used to focus primarily on literature, but the new rules require prospective English teachers to be able to teach communication arts and literature. Background in pedagogy is not being minimized, she says, but, rather, teachers must both know their content and know how to teach it in a developmental way.

One legislative change, however, will be closely watched for its effect on teaching quality. Because of a perception of shortages in critical areas, a new rule allows teachers from out of state who are licensed to teach math but only have a minor in math, for example, to be hired.

#### CONTACT:

Judy McGilvary, Supervisor of Licensing, Department of Children, Families, and Learning Michael Tillmann, Executive Director of the Minnesota Board of Teaching 1500 Highway 36 West Roseville, MN 55113 651/582-8825 www.cfl.state.mn.us



## What is the National Education Goals Panel?

The National Education Goals Panel is a unique bipartisan body of state and federal officials created in 1990 by President Bush and the nation's Governors to report state and national progress and urge education improvement efforts to reach a set of National Education Goals.

# Who serves on the National Education Goals Panel and how are they chosen?

Eight governors, four state legislators, four members of the U.S. Congress, and two members appointed by the President serve on the Goals Panel. Members are appointed by the leadership of the National Governors' Association, the National Conference of State Legislatures, the U.S. Senate and House, and the President.

# What does the Goals Panel do?

The Goals Panel has been charged to:

- Report state and national progress toward the National Education Goals.
- Work to establish a system of high academic standards and assessments.
- Identify promising and effective reform strategies.
- Recommend actions for state, federal and local governments to take.
- Build a nationwide, bipartisan consensus to achieve the Goals.

The annual Goals Report and other publications of the Panel are available without charge upon request from the Goals Panel or at its web site www.negp.gov. Publications requests can be made by mail, fax, or e-mail, or by Internet.

#### North Dakota

North Dakota has had strict major/minor requirements for secondary school teachers for many years. As a consequence, 100% of its secondary school teachers are certified in their main teaching assignment. Moreover, 76% of its secondary school teachers have an academic undergraduate or graduate degree in their main teaching assignment.

Both state laws and regulations of the state's professional standards board set out criteria for licensure/certification. Initial licensure of secondary teachers, for example, requires them to have a major or minor in the subject they are to teach. Middle school teachers who plan to teach at grades 7-8 must meet the same requirements as for high school teachers, according to Deb Jensen, assistant director of the North Dakota Education Standards and Practices Board.

All public teacher preparation programs are accredited by NCATE, and the state's content area standards for secondary teachers have just been revised to incorporate performance-based assessments.

Contact:

Deb Jensen
North Dakota Education Standards and Practices Board
Department 202
600 E. Boulevard Ave.

Bismarck, ND 58505-0080 701-328-1439

www.state.nd.us/espb

## **Rhode Island**

Rhode Island ranks very high on both indicators, equal to that of North Dakota. Seventy-six percent of its secondary school teachers hold an undergraduate or a graduate degree in their main teaching assignment. Also, 100% of the secondary public school teachers hold a teaching certificate in their main teaching assignment.

To be certified to teach at the secondary level, teachers must have an academic degree, according to David Roy of the Rhode Island Department of Education. Two issues led to this decision, he says. The 1984 A Nation at Risk report caused policymakers to review quality factors. At the time, teachers could receive content-area certification with only 18 hours credit in the content. Because of a teacher surplus at the time, teachers with



# **RESOURCES**

American Association of State Colleges and Universities, 1307 New

York Ave., NW; Fifth Floor; Washngton, DC 20005-4701; "A Call for Teacher Education Reform."

American Council on Education, One Dupont Circle, NW; Washington, DC 20036-1193; "To Touch the Future: Transforming the Way Teachers Are Taught."

American Federation of Teachers, 555 New Jersey Ave., NW; Washington, DC 20001-2079; "Building a Profession: Strengthening Teacher Preparation and Induction."

Educational Testing Service, Rosedale Rd., Princeton, NJ 08541-0001; reports on "How Teaching Matters," "How Teachers Compare: the Prose, Document, and Quantitative Skills of America's Teachers," and "The Academic Quality of Prospective Teachers: The Impact of Admissions and Licensure Testing."

Ingersoll, David, "The Problem of Underqualified Teachers in American Secondary Schools," *Educational Researcher*, Vol. 28, No. 2.

Interstate New Teachers Assessment and Support Consortium, Council of Chief State School Officers, One Massachusetts Ave., NW, Suite 700, Washington, DC 20001-1431.

National Commission on Teaching & America's Future, Teachers College, Columbia University, Box 117; 525 West 120<sup>th</sup> St., New York, NY 10027.

inadequate content background were bumping more qualified teachers out of their staff positions. The requirements were changed to mandate a major in the subject field, as well as 30-36 credit hours for a minor in a field.

Teacher preparation programs in Rhode Island must prepare teacher candidates and assess their performance based on the Rhode Island Beginning Teacher Standards and appropriate content standards. These were under development for six years. The performance assessments are to be based on content standards established by national discipline groups, such as the National Council of Teachers of Mathematics. New teachers also are supported by a quality mentoring program for the first few years of teaching

All professionals in the public schools and in private facilities for handicapped students must have appropriate teaching/administrative certificates.

In 1997, the Rhode Island Board of Regents eliminated lifetime certification for beginning teachers. Instead, every educator eventually must participate in an Individual Professional Development Plan that focuses on assessment of performance. At this time, 1,000 teachers are participating in a pilot test of the plans. The strategy does not eliminate additional course taking, according to Roy, but it will be only one of several elements included in renewal of certification instead of the sole basis for renewal.

## CONTACT;

Doris Anfelmo
David Roy
Rhode Island Department of Education
255 Westminster St.
Providence, RI 02903
401/222-2675 (Anfelmo; Ext. 2252; Roy, Ext. 2255)
www.ridoe.net



# **RESOURCES** (cont'd)

National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education, 1990 K St, NW, Washington, DC 20006; "Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers."

National Council for Accreditation of Teacher Education, 2010 Massachusetts Ave., NW, Suite 200, Washington, DC 20036.

Public Agenda, 6 E. 39th St., New York, NY 10016; "A Sense of Calling: Who Teaches and Why."

Southern Regional Education Board, 592 10th St., NW, Atlanta, GA 30318; "Getting Beyond Talk: State Leadership Needed to Improve Teacher Quality."

The Education Trust, 1725 K St., NW, Suite 200, Washington, DC 20006; "Not Good Enough: A Content Analysis of Teacher Licensing Examinations."

# **Upcoming Goals Panel Events and Products**

### January 18, 2001

Next meeting of the Panel's Measuring Success Task Force, chaired by Gov. John McKernan of Maine. At the Panel's December 7 meeting Gov. McKernan indicated the kinds of new data that the Task Force considers essential for the nation to measure the effects of education reform efforts and the Panel to measure progress towards shared education goals. January 18 Task Force members will discuss incentives, policy changes and budget needs for securing better national education data.

## February 24, 2001

Meeting of the National Education Goals Panel to receive and respond to the data recommendations from Gov. McKernan, and announce plans of the new 2001 Panel chair.

## February, 2001

Release of Promising Practices 2000: Progress Towards the Goals